

Multiple operations with two variables

When you use the Multiple Operations tool with two variables, it creates a two-dimensional results table. Each variable defines one of the table's dimensions such that the alternate values for both variables serve as the table's row and column headings, respectively. Each cell in the table corresponds to a distinct pair of row and column heading values. In turn, the results in each cell are created from these values for both variables.

Since you are using two variables, you must use both the *Column input cell* and *Row input cell* dialog fields to define them. The order is important; the *Column input cell* field corresponds to the row heading values, while the *Row input cell* field corresponds to the column heading values.

Tip

A good guideline to remember is that since column headings are in a row at the top of the table, they correspond to the *Row input cell* field. Likewise, row headings are in a column, so they correspond to the *Column input cell* field.

Note

If you use two variables, the Multiple Operations tool will not work with multiple formulas. It will allow you to enter the extra formulas, but will not generate the expected results for any formula beyond the first.

Calculating with two variables

Using our sales example, suppose that in addition to varying the quantity of toys sold, you also want to vary the unit sale price as well. To calculate the results:

- 1) Expand the sales data table by entering \$8, \$10, \$15 and \$20 in the range E1:H1.
- 2) Select the range D1:H11 for the results table.
- 3) Select **Data > Multiple Operations** on the Menu bar to open the Multiple Operations dialog.
- 4) Using the *Formulas* field, select cell B5.
- 5) Using the *Row input cell* field, select cell B1. The column headings – \$8, \$10, \$15 and \$20 – are now linked to the unit sale price variable defined in cell B1.
- 6) Using the *Column input cell* field, select cell B4. The row headings – 500, 1000, ... , 5000 – are now linked to the quantity sold variable defined in cell B4. Figure 320 shows the worksheet and dialog at this point.
- 7) Click **OK**. The profits for the different sale prices and quantities are now shown in the range E2:H11 (Figure 336).